

INVESTIGATOR'S ANNUAL REPORT

National Park Service

All or some of the information provided may be available to the public

Reporting Year: 1998	Park: Shenandoah NP						
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Name: Dr. Donald D. Davis	Phone: 814 865-1689	Email: n/a					
Name: Dr. Kim C. Steiner	Phone: 814 865-9351	Email: n/a					
Permit#: SHEN1998N-215							
Park-assigned Study Id. #: unknown							
Project Title: Impact Of Ambient Ozone On Physiological, Visual, And Growth Responses Of Sensitive Eastern Hardwood Tree Species Under Natural And Varying Conditions							
Permit Start Date: Jan 01, 1998	Permit Expiration Date Jan 01, 1999						
Study Start Date: Jan 01, 1997	Study End Date Jan 01, 1999						
Study Status: Completed							
Activity Type: Research							
Subject/Discipline: Air Quality							
Objectives: To determine whether radial growth or the relationship between ring width variation and climate differ in relation to foliar ozone symptom severity within and among natural populations of three ozone-sensitive hardwood tree species (black cherry, white ash, and yellow-poplar).							
Findings and Status: Pairs of increment cores were collected during July, 1997 from previously studied (1991-1993) and tagged trees at three sites within the SHEN. The total core collection nominally represents 242 trees and 484 cores. Field measurements taken with respect to each cored tree included species, tree number, dbh, height, live crown, and average crown width. Slope, aspect, and steepness and crown vigor rating were also measured. Each tree had been assigned an ozone-sensitivity rating based on the 1991-1993 scores. In the laboratory, cores have been air dried and permanently mounted onto wooden holders and labelled. All cores have been surfaced, crossdated, and measured for ring widths. Measurements and crossdating have been completed on one collection of 48 yellow-poplar from Big Meadows and on a 60-tree collection of black cherry from Big meadows. Work is beginning on grouping the trees within each collection according to ozone sensitivity after which growth measurements will be related to ozone sensitivity ratings.							
For this study, were one or more specimens collected and removed from the park but not destroyed during analyses? No							
Funding provided this reporting year by NPS: 0	Funding provided this reporting year by other sources: 25000						
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college							

Full name of college or university: n/a	Annual funding provided by NPS to university or college this reporting year: 0
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